Windows®. Life without Walls™.
Fujitsu recommends Windows 7.

Data Sheet
Fujitsu ESPRIMO P9900 0-Watt Desktop PC

The innovative 0-Watt PC

ESPRIMO P9900 0-Watt

As an 0-Watt PC, the ESPRIMO P9900, equipped with innovative technology from Fujitsu and Intel®, is a power-saving miracle and the ideal companion for all highly demanding business applications - all in one. Made of specially selected material and, in addition to the 0 Watt function, equipped with further power-save options, such as a switched monitor outlet and power save management, this ESPRIMO microtower PC already meets today the legal requirements of tomorrow. Furthermore, this microtower, equipped with a highly efficient power supply of up to 89%, meets the criteria of ENERGY STAR®. Top performance and energy savings for all requirements.

0-Watt PC

Cost savings by completely reducing off-mode losses

- Patented function for 0-Watt power consumption in off and hibernating mode with simultaneous management in a time slot that can be optionally set

Environmentally conscious product with ENERGY STAR certification

Your contribution to environmental protection for the continued existence of our planet

- Halogen-free mainboard, sophisticated product concept for the entire lifecycle

Highest energy efficiency coupled with intelligent performance

The best-in-class regarding power consumption combined with new levels of performance

- State-of-the-art Intel® Core™ processors with Turbo Boost and hyperthreading technology and a power supply with up to 87% efficiency

System management

Easy system administration for complex IT infrastructure

- Intel® vPro™ technology

Silent operation

Pleasant working environment due to an extremely quiet system

- Innovative hardware design, optimized fan concept

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Components

Processor	Intel® Core™ i7-870 processor (4 Cores / 8 Threads, 2.93 GHz, 8 MB)
	Intel® Core™ i7-860 processor (4 Cores / 8 Threads, 2.80 GHz, 8 MB)
	Intel® Core™ i5-760 processor (4 Cores / 4 Threads, 2.80 GHz, 8 MB)
	Intel® Core™ i5-750 processor (4 Cores / 4 Threads, 2.66 GHz, 8 MB)
	Intel® Core™ i5-680 processor (2 Cores / 4 Threads, 3.6 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i5-660 processor (2 Cores / 4 Threads, 3.33 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i5-650 processor (2 Cores / 4 Threads, 3.20 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i3-550 processor (2 Cores / 4 Threads, 3.20 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i3-540 processor (2 Cores / 4 Threads, 3.06 GHz, 4 MB, Intel® HD Graphics)
	Intel® Pentium® processor G6950 (2 Cores / 2 Threads, 2.80 GHz, 3 MB, Intel® HD Graphics)
Operating system	
Operating system	Genuine Windows® 7 Home Basic (EM) 32-bit Genuine Windows® 7 Home Premium 64-bit Genuine Windows® 7 Professional 32-bit Genuine Windows® 7 Professional 64-bit
Operating system compatible	openSUSE Linux Genuine Windows Vista® Genuine Windows® XP
Operating system notes	Microsoft Office 2010 preloaded. Purchase a Product Key to activate a full Microsoft Office 2010 suite. Limited Windows XP support. Microsoft discontinued Windows XP certification on system level.
Memory modules	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM
Hard disk drives (internal)	SSD SATA, 128 GB, 2.5-inch
	SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T. business critical
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 320 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 250 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 160 GB, 2.5-inch, S.M.A.R.T.
	Supporting NCQ and 3 GBit
Graphics add on cards (optional)	NVIDIA® Quadro® NVS 290, 256 MB
	NVIDIA® GeForce® GT 420
	NVIDIA® GeForce® 9500GS, 512 MB
	NVIDIA® GeForce® 9300GE display port low profile, 512 MB
	NVIDIA® GeForce® 9300GE, 512 MB
	NVIDIA® GeForce® 405 display port full height
	DP to DVI-D (single link) Adapter Cable
	ATI Radeon® HD 5450, 512 MB
Drives (optional)	Blu-ray Disc™ Triple Writer
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 20in1, USB 2.0, 3.5-Inch
	MultiCard Reader 20in1 USB 3.0 front con., 3.5-Inch

Interface add on cards/components (optional)	
	WLAN III, 802.11g/Draft-n (Windows only)
	USB 3.0 PCIe x1
	Parallel Interface
	Modem adapter kit (EU)
	Modem 56k incl. RJ11 modem cable
	Gigabit Ethernet PCIe x1
	FireWire PCI-Card IEEE1394
	eSATA Interface
	Dual serial card PCI
Base unit	ESPRIMO P9900 0-Watt
Mainboard	
Mainboard type	D2912
Formfactor	µBTX
Chipset	Intel® Q57
Processor socket	LGA 1156
Processor quantity maximum	1
Memory slots	4 DIMM (DDR3)
Supported capacity RAM (max.)	16 GB
Memory frequency	1333 MHz
Memory notes	Dual channel support. For dual channel performance, 2 memory modules have to be ordered. Capacity per channel has to be the same.
LAN	10/100/1000 MBit/s Intel® 82578 DM
BIOS version	Phoenix 6.0
BIOS features	BIOS Flash EPROM update by software Recovery BIOS
Audio codec	Realtek ALC663
Audio features	Internal speaker supports audio playback, High Definition audio, 5.1 surround sound
I/O controller on board	
Serial ATA total	4
thereof eSATA	2 (optional)
Controller functions	Serial ATA II NCQ and 3 GBit AHCI Raid 1/0
Interfaces	
Audio: line-in	1
Audio: line-in / microphone	1
Audio: line-out	1
Front audio: microphone	1
Front audio: headphone	1
USB 2.0 total	14
USB front	2
USB rear	8
USB internal	4
VGA	1 (via DVI to VGA adapter; included for onboard graphics only)
DisplayPort	1 (for onboard graphics only)
DVI	1 (for onboard graphics only)
Serial (RS-232)	1 (9pin, 16 byte FIFO, 16550 compatible)

Interfaces	
Mouse / Keyboard (PS/2)	2
Ethernet (RJ-45)	1
Parallel	1 (optional) (25pin with EPP and ECP)
Interface Module notes	Anytime USB charge functionality
Input device / components	
	Optical USB tilt wheel mouse
Input devices (optional)	Optical USB/PS2 tilt wheel mouse
Drive bays	
Drive bays total	6
3.5-inch internal bays	2
3.5-inch external bays	2
5.25-inch external bays	2
Slots	
PCI-Express 2.0 x16	1 x (230 mm) FlexySlot
PCI-Express x4 (mech x16)	1 x (230 mm) full height
PCI (32-bit / 33 MHz)	2 x (170 / 315 mm) full height
Graphics on board	
Graphics brand name	Intel® HD Graphics (integrated in dual-core processors only)
Shared video memory	up to 1759 MB
Refresh rate 1024 x 768 (recommended / max.)	85 Hz / -
Refresh rate 1280 x 1024 (recommended / max.)	85 Hz / -
Refresh rate 1600 x 1200 (recommended / max.)	85 Hz / -
TFT resolution (VGA)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DisplayPort)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel 2560 x 1440 pixel 2560 x 1600 pixel
Graphics features	Dual display support DirectX 10.1 HDCP support OpenGL® 2.0

Graphics on board	
Graphics notes	Graphics controller integrated in dual-core processors. For quad-core processors graphics card is mandatory. Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size and operating system Resolution (color depth up to 32 Bit/pixel) For TFT we recommend using 60Hz
Electrical values	
Power efficiency note	power supply efficiency (at 230V; 20% / 50% / 100% load) : 86% / 89% / 87%
	0-Watt mode automatically
Rated voltage range	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz
Operating voltage range	90 V - 264 V
Operating line frequency range	47 Hz - 63 Hz
Max. output of single power supply	250 W
Power factor correction/active power	active
Monitor outlet	Switched
Power consumption	
Power consumption note	See white paper Energy Consumption 0-Watt mode automatically
Link to Energy White Paper	http://docs.ts.fujitsu.com/dl.aspx?id=1c12084a-5b8b-4839-84b5-2c269e4aa4e0
Heat dissipation	
Heat dissipation notes	See white paper Energy Consumption
Noise for standard configuration (HDD, ODD, FDD)	
Noise emission	According to ISO9296
Related Processors for noise	Intel® Core™ i5-670 ; Intel® Core™ i7-860 including NVIDIA® Geforce® 9500GS
Noise Operation mode 1: ODD load (Blue angel requirement)	4.4 B / 29 dB(A) ; 4.4 B / 29 dB(A)
Noise Operation mode 2: HDD load (Blue angel requirement)	3.7 B / 21 dB(A) ; 3.6 B / 21 dB(A)
Noise Operation mode 3: CPU 90% load (Blue angel requirement)	3.9 B / 24 dB(A) ; 3.9 B / 24 dB(A)
Noise Operation mode 4: High load	3.9 B / 23 dB(A) ; 3.9 B / 24 dB(A)
Noise Operation mode 5: Office applications	3.8 B / 22 dB(A) ; 3.6 B / 20 dB(A)
Idle mode (Blue Angel requirement)	3.7 B / 20 dB(A) ; 3.6 B / 20 dB(A)
Noise notes / description	A weighted sound power level Lwad (in B) / workplace related A-weighted sound pressure level LpAm (in dB(A)), Bystander position
Dimensions / Weight / Environmental	
Dimensions (W x D x H)	203 x 390 x 392 mm
Operating position	Vertical
Weight	approx. 12 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35°C
Compliance	
Product	ESPRIMO P9900
Model	MI3W-D2912
Germany	Blauer Engel / Blue Angel GS optional
Europe	CE Nordic Swan

Compliance	
USA/Canada	FCC Class B cCSAus
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 5.0 EPEAT® Silver
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx
Additional Software	
Additional software (preinstalled)	Nero Essentials S (burning software)
Additional software (optional)	Recovery DVD for Windows® Drivers & Utilities DVD (DUDVD) CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics) Nero 9 Essentials XL
Miscellaneous	
	Thermal management Keyboard on (Special Fujitsu keyboard required) Extended lifetime
Compatibility (references)	
	DMI 2.0 PC 2001 WMI 1.5 USB 2.0 SMBIOS
Manageability	
Manageability features	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch (optional) iAMT 6.0
Manageability type	DeskView 10.x client management including:
DeskView features	On/Offline remote client management Detailed system inventory management and reports BIOS Management Remote power management System notifications Advanced alerts (ASF implementation) Security Remote Control DeskView Helpdesk Integration WoL (Wake on LAN)
Security	
Physical security	Kensington Lock support Eye for padlock Optional: Integrated cabinet lock
System security	Boot sector virus protection Write protect option for the Flash EPROM Embedded security (TPM 1.2) Control of all USB interfaces External USB ports can be disabled separately Control of external interfaces

Security	
User security	User and supervisor BIOS password SystemLock 2 BIOS SmartCard Security Hard disk password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader
Serviceability	
	FlexySlot EasyFix EasyChange for HDD EasyChange for optical drives
Packaging information	
Packaging dimension	500x290x540 mm
Max. quantity / pallet	24
Material - Weight (g) Carton	1270 g
Material - Weight (g) EPS / PS	230 g
Material - Weight (g) PE	appr. 60 g
Packaging notes	printed user documentation is bleached in chlorine free process
Warranty	
Standard Warranty	3 years
Service level	Bring-In / On-Site Service (depending on country)
Maintenance and Support Services - the perfect extension	
Recommended Service	5x9, Response Time: Next Business Day
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

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More information

Fujitsu platform solutions

In addition to Fujitsu ESPRIMO P9900 0-Watt, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

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More information

Learn more about Fujitsu ESPRIMO P9900 0-Watt, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://ts.fujitsu.com/ESPRIMO

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at http://www.fujitsu.com/global/about/environment/

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